

METHOD AND APPARATUS FOR REMOVING CONDUCTIVE MATERIAL FROM A MICROELECTRONIC SUBSTRATE

ABSTRACT

A method and apparatus for removing conductive material from a microelectronic substrate. In one embodiment, a support member supports a microelectronic substrate relative to first and second electrodes, which are spaced apart from each other and spaced apart from the microelectronic substrate. One or more electrolytes are disposed between the electrodes and the microelectronic substrate to electrically link the electrodes to the microelectronic substrate. The electrodes are then coupled to a source of varying current that electrically removes the conductive material from the substrate. The microelectronic substrate and/or the electrodes can be moved relative to each other to position the electrodes relative to a selected portion of the microelectronic substrate, and the electrodes can be integrated with a planarizing portion of the apparatus to remove material from the conductive layer by chemical-mechanical planarization.